

WHAT IS CLAIMED IS:

1. An apparatus for transplanting a hair graft,
comprising:
 - a housing including an actuator chamber and a hair
5 graft chamber with an open distal end;
 - a gas-permeable stopper operably coupled to the hair
graft chamber;
 - an aperture through a side of the actuator chamber;
and
 - 10 a vacuum source operably coupled to the aperture to
provide suction at the open distal end through the gas-
permeable stopper thereby drawing a hair graft into the
housing through the open distal end.
- 15 2. The apparatus of Claim 1, further comprising a mesh
over the aperture.
3. The apparatus of Claim 1, further comprising a
communicating means coupling the vacuum source and the
20 aperture.
4. The apparatus of Claim 1, further comprising a control
element operably coupled to the vacuum source.
- 25 5. The apparatus of Claim 1, wherein the vacuum source is
operably coupled to the actuator chamber for loading a hair
graft into a spacing within the hair graft chamber defined
by an end of the stopper and the open distal end.
- 30 6. The apparatus of Claim 1, further comprising a gas
pump operably coupled to the aperture capable of providing
gas flow through the gas-permeable stopper to push a loaded
hair graft out of the housing through the open distal end.

7. The apparatus of Claim 1, further comprising a projection connected to the hair graft chamber, the projection extending in parallel to a central axis of the housing and beyond the open distal end of the housing.

8. The apparatus of Claim 1, wherein the gas-permeable stopper is formed of braided wires.

9. The apparatus of Claim 1, wherein the gas-permeable stopper is formed of porous material.

10. An apparatus for transplanting a hair graft, comprising:

a housing including an actuator chamber and a hair graft chamber with an open distal end;

a gas-permeable stopper operably coupled to the hair graft chamber;

an aperture through a side of the actuator chamber;

and

a gas pump operably coupled to the aperture to provide gas flow through the gas-permeable stopper thereby pushing a hair graft out of the housing through the open distal end.

11. The apparatus of Claim 10, wherein the gas-permeable stopper is formed of braided wires.

12. The apparatus of Claim 10, wherein the gas-permeable stopper is formed of porous material.

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13. An apparatus for transplanting a hair graft, comprising:

a housing including an actuator chamber and a hair graft chamber with an open distal end;

a vacuum source operably coupled to the housing to provide suction at the open distal end thereby drawing a hair graft into the housing through the open distal end;

5 a gas-permeable rod inside the housing, an end of the rod being movable to a position along a central axis of the housing; and

an actuator to move the end of the rod substantially flush with the open distal end of the housing so that a loaded hair graft is delivered to a scalp wound.

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14. The apparatus of Claim 13, wherein the vacuum source is operably coupled to the actuator chamber for loading a hair graft into a spacing within the hair graft chamber defined by an end of the rod and the open distal end.

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15. The apparatus of Claim 13, further comprising means for communicating with a side aperture in the aperture chamber for creating a vacuum within the hair graft chamber.

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16. The apparatus of Claim 15, wherein the means for communicating includes a control element which applies or releases vacuum to the hair graft chamber.

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17. The apparatus of Claim 13, wherein the end of the rod is movable between a first position and a second position, wherein, with the end of the rod in the first position, the housing provides a spacing between the end of the rod and the open distal end of the housing to receive a hair graft, and wherein, with the end of the rod in the second position, the end of the rod is substantially flush with the open distal end of the housing, so that the hair graft is delivered to a scalp wound.

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18. The apparatus of Claim 17, wherein the actuator includes a plunger connected to the rod, the plunger being able to move the end of the rod to the first position from the second position or to the second position from the first position.
19. The apparatus of Claim 13, wherein the actuator includes a piston inside the actuator chamber.
20. The apparatus of Claim 13, wherein the actuator includes a plunger connected to the piston.
21. The apparatus of Claim 13, wherein the actuator includes a biasing spring operably coupled to the piston.
22. The apparatus of Claim 21, wherein the biasing spring is operative to move the end of the rod to the first position from the second position.
23. The apparatus of Claim 13, further comprising a projection connected to the hair graft chamber, the projection extending in parallel to the central axis and beyond the open distal end of the housing.
24. The apparatus of Claim 13, further comprising a projection connected to the end of the rod, the projection extending in parallel to the central axis and beyond the end of the rod.
25. A method for transplanting a hair graft, comprising:
providing a housing having an open distal end;
providing a spacing between an end of a gas-permeable structure and the open distal end of the housing; and

providing vacuum on an interior side of the gas-permeable structure thereby drawing a hair graft into the spacing through the open distal end of the housing.

5 26. The method of Claim 25, further comprising:

providing gas flow through the gas-permeable structure toward the distal end of the housing thereby pushing a loaded hair graft out of the spacing through the open distal end of the housing.

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27. A method for transplanting a hair graft, comprising:

providing a housing having an open distal end;

providing a gas-permeable rod inside the housing, an end of the rod being movable between a first position and a second position along a central axis of the housing;

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providing a spacing between the end of the rod and the open distal end of the housing;

providing a vacuum inside the housing to load a hair graft into the spacing; and

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moving the end of the rod substantially flush with the open distal end of the housing thereby moving the hair graft out of the spacing and into a scalp wound without the open distal end of the housing penetrating the scalp wound.

25 28. The method of Claim 27, further comprising moving the hair graft out of the spacing and into a scalp without the end of the rod penetrating the scalp wound.

29. The method of Claim 27, further comprising aligning
30 the hair graft with a direction of the scalp wound prior to moving the hair graft out of the spacing.